



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/789,143 | 02/27/2004 | Jeffrey A. Tilton | 25363A | 9278 |
| 22889 | 7590 | 12/01/2005 | EXAMINER | |
| OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023 | | | PIZIALI, ANDREW T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,143

Applicant(s)

TILTON ET AL.

Examiner

Andrew T. Piziali

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/19/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 10/12/2005 has been entered. The examiner has withdrawn the objection to the specification based on the amendment to the specification. Applicant's amendment necessitated the new ground of rejection presented in this Office action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 9-15 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,616,408 to Oleszczuk et al. (hereinafter referred to as Oleszczuk) or USPN 5,804,512 to Lickfield et al. (hereinafter referred to as Lickfield).

Regarding claims 1-5, 9-15 and 19-22, Oleszczuk and Lickfield each disclose an article comprising a first layer of wet processed mat (14), and a second layer of wet processed mat (16), wherein said first and/or second layer comprises thermoplastic polymer staple fibers and thermoplastic bicomponent fibers (see entire documents including the paragraph bridging columns 11 and 12 of Oleszczuk and column 9, lines 12-20 of Lickfield). Oleszczuk and Lickfield each disclose that the first and second layers may be thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield).

Absent a showing to the contrary, it is the examiner's position that the first or second layer of wet processed mat taught by the applied prior art is identical to the claimed

Art Unit: 1771

liner/insulator. Although the current claims refer to directly bonding first, second, and sometimes a third layer of wet processed mat to form the claimed liner/insulator, the claims do not distinguish between the first, second, and third layers. Therefore, a single mass of wet processed bonded fibrous mat comprising thermoplastic polymer staple fibers and thermoplastic bicomponent fibers can be considered a multi-layer article comprising multiple layers of identical fibers.

Regarding claims 3 and 15, Oleszczuk and Lickfield each disclose that the fibers may be polyester, polyethylene, and/or PET (see column 8, lines 22-54 and column 12, lines 43-56 of Oleszczuk and column 3, lines 55-67 and column 10, lines 1-9 of Lickfield).

Regarding claims 4, 5 and 13, Oleszczuk and Lickfield each disclose that the layers may be thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield).

Regarding claims 9 and 19, Oleszczuk and Lickfield each disclose that the first or second layer may be hydrophilic (see column 12, lines 31-43 of Oleszczuk and column 4, lines 1-17 of Lickfield).

Regarding claims 10 and 20, Oleszczuk and Lickfield each disclose that the first or second layer may be flame retardant (heat resistant) (see column 12, lines 31-43 of Oleszczuk and column 9, lines 52-63 of Lickfield).

Regarding claims 11 and 21, Oleszczuk and Lickfield each disclose that fibers of the first or second layer may be polyethylene (column 8, lines 22-54 of Oleszczuk and column 3, line 55 through column 4, line 17 of Lickfield), which is inherently hydrophobic.

Art Unit: 1771

Regarding claims 12 and 22, Oleszczuk and Lickfield each disclose that the fibers may be natural fibers such as cotton or wool (see column 8, lines 37-54 of Oleszczuk and column 4, lines 1-17 of Lickfield), which are inherently sound absorbent.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-8 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield as applied to claims 1-5, 9-15 and 19-22 above, and further in view of USPN 4,813,948 to Insley.

Oleszczuk and Lickfield are each silent with regards to specific layer thicknesses, therefore, it would have been necessary and thus obvious to look to the prior art for conventional thicknesses. Insley provides this conventional teaching showing that it is known in the nonwoven barrier fabric art to use layer thicknesses ranging from 0.02 to 4 cm (see entire document including column 3, lines 43-62 and column 11, lines 39-51). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the layers with a thickness ranging from 0.02 to 4 cm, motivated by the expectation of successfully practicing the invention of Oleszczuk and/or Lickfield.

Art Unit: 1771

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield as applied to claims 1-5, 9-15 and 19-22 above, and further in view of any one of USPN 6,548,431 to Bansal et al. (hereinafter referred to as Bansal) or USPN 4,508,113 to Malaney.

Oleszczuk and Lickfield each disclose that the fibers may be bicomponent fibers comprising a polyethylene sheath (see column 12, lines 44-56 of Oleszczuk and column 10, lines 1-9 of Lickfield), but Oleszczuk and Lickfield are each silent with regards to a specific bonding temperature. Therefore, it would have been necessary and thus obvious to look to the prior art for conventional bonding temperatures. Bansal and Malaney each provide this conventional teaching showing that it is known in the art to use a bonding temperature within a range of about 100 to about 150C (about 200 to 300F) when bonding polyethylene (see entire documents including column 8, lines 22-38 of Malaney and column 14, lines 37-52 of Bansal). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply heat at a temperature range of 200 to 300F, motivated by the expectation of successfully practicing the invention of Oleszczuk and/or Lickfield.

Response to Arguments

7. Applicant's arguments filed 10/12/2005 have been fully considered but they are not persuasive.

The applicant asserts that the applied prior art does not teach or suggest the claimed liner/insulator because the applied prior art teaches a sandwich structure. The examiner respectfully disagrees. Oleszczuk and Lickfield each disclose an article comprising a first layer of wet processed mat (14), and a second layer of wet processed mat (16), wherein said first

Art Unit: 1771

and/or second layer comprises thermoplastic polymer staple fibers and thermoplastic bicomponent fibers (see entire documents including the paragraph bridging columns 11 and 12 of Oleszczuk and column 9, lines 12-20 of Lickfield). Oleszczuk and Lickfield each disclose that the layers may be thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield).

Absent a showing to the contrary, it is the examiner's position that the first or second layer of wet processed mat taught by the applied prior art is identical to the claimed liner/insulator. Although the current claims refer to directly bonding first, second, and sometimes a third layer of wet processed mat to form the claimed liner/insulator, the claims do not distinguish between the first, second, and third layers. Therefore, a single mass of wet processed bonded fibrous mat comprising thermoplastic polymer staple fibers and thermoplastic bicomponent fibers can be considered a multi-layer article comprising multiple layers of identical fibers.

Conclusion

8. Applicant's amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 1771

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gtp 11/18/05

atp

ANDREW T. PIZIALI
PATENT EXAMINER



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700